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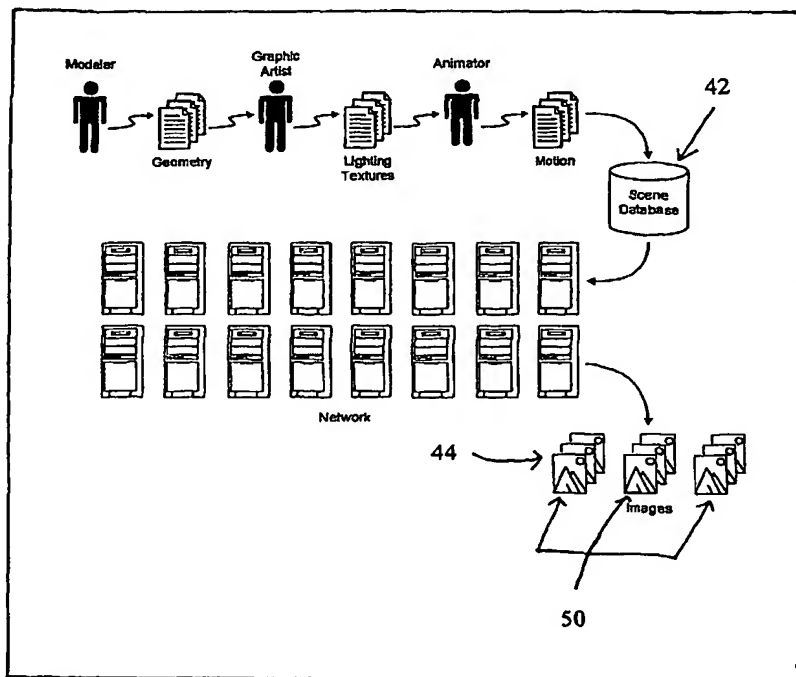
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[Continued on next page]

(54) Title: **VISIBLE SURFACE DETERMINATION SYSTEM & METHODOLOGY IN COMPUTER GRAPHICS USING INTERVAL ANALYSIS**



(57) Abstract: A system (40) is provided for visible surface determination in furtherance of photorealistic rendering in a computer graphics environment. The system includes a scene database (42) and a processor, visual characteristics of objects of an image frame (44) of a scene of the scene database (42) are delimited as geometric primitive. The processor, for executing an interval analysis, to a user degree of certainty, accurately and deterministically ascertains a visible solution set of an area not exceeding a pixel dimension for a pixel of an array of pixels (50) that form said image frame (44).

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Declarations under Rule 4.17:

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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations* AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM,

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